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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,694	07/20/2001	Tracy Joseph Stark	STA-001	9956

7590 11/01/2002

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EXAMINER

MCELHENY JR, DONALD E

ART UNIT PAPER NUMBER

2862

DATE MAILED: 11/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/909,694

Applicant(s)

STARK, TRACY JOSEPH

Examiner

Donald E. McElheny, Jr.

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-63 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. The drawings filed on 07/20/01 are objected to for reasons set forth on the attached "Notice of Draftperson's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over the article to William Wescott et al. titled "Modern applications of biostratigraphy in exploration and production".

The features of the claims directed to processing and presentation of seismic data are not seen to be supported as being any different than that already notoriously well known within the seismic data processing arts. Nor does applicant's own disclosure give such criticality and novelty to such seismic data processing features. The gist of the inventive difference with respect to the prior art is the choice of how the substrata/subsurface region earth model references strata regions by use of geologic age (i.e. nebulous and poorly claimed concept "geologic time volume" which could be read on other unintended concepts such as any well known seismic data volume/voxel since seismic echoes have a travel time from the reflected geologic region) and the correlation of geologic age with the modeled seismic data points/regions.

The Wescott et al. article teaches the use of such geologic age referencing and correlation with seismic data models. While the article does not disclose explicit details of the internal computer structure (e.g. "storage locations", memory, etc.) and its data processing steps, those skilled in the art would understand and would have known that such operational features were inherent or routinely carried out in this art to support the operational functions discussed in this article. In light of the teachings of this, and other art of record, to use geologic time era information in the description of subsurface strata regions and with geologic models including seismic as well as with other types of sensed and gathered subsurface data, e.g. wellbore data of various types, and incorporating such into the geological model. Therefore the standard prior art data fusion techniques would inherently include along with the use of "geologic times" data the remaining well known seismic data processing techniques into such models, such as interpolation, 2D and 3D modeling techniques, etc. Also note that claims directed to the various computer storage medium and software support structure would thus also be inherently used in such computer systems as this article would use support its taught modeling functions, and note that applicant's own disclosure teaches at the same level of disclosure of this article, namely fails to teach anymore than direction to use such products -- applicant has not disclosed any program code nor algorithm flowchart to support development of such an enabling computer program on any type of notoriously well known computer storage memory device.

4. Any questions regarding the Draftsman's receipt and approval of outstanding drawing correction requirements should be directed to telephone number (703) 305-8126.

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Any inquiry touching on the merits of this application concerning this communication or earlier communications from the examiner should be directed to Donald McElheny Jr., whose telephone number is (703) 305-3894. Fax transmissions may be directed to (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, Edward Lefkowitz, can be reached at (703) 305-4816.



DONALD E. McELHENY, JR.
PRIMARY EXAMINER